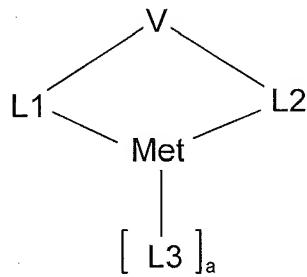


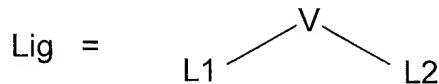
**AMENDMENTS TO THE CLAIMS**

1. (Currently amended) 1. (Previously presented) A compound of the Structure 1



Structure 1

wherein Structure 1 contains a metal Met, coordinated to a tetradeinate chelating ligand Lig of Structure 2



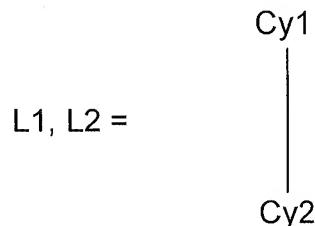
Structure 2

where V is a bridging unit which contains 1 to 40 atoms from the third, fourth, fifth and/or sixth main group and CR<sub>2</sub>

R is, identically or differently on each occurrence, H, F, Cl, Br, I, NO<sub>2</sub>, CN, a straight-chain, branched or cyclic alkyl or alkoxy group having 1 to 20 C atoms, where one or more non-adjacent CH<sub>2</sub> groups may be replaced by -R<sup>1</sup>C=CR<sup>1</sup>-, -C≡C-, Si(R<sup>1</sup>)<sub>2</sub>, Ge(R<sup>1</sup>)<sub>2</sub>, Sn(R<sup>1</sup>)<sub>2</sub>, C=O, C=S, C=Se, C=NR<sup>1</sup>, -O-, -S-, -NR<sup>1</sup>- or -CONR<sup>1</sup>- and where one or more H atoms may be replaced by F, or an aryl, aryloxy or heteroaryl group having 1 to 14 C atoms, which may be substituted by one or more non-aromatic radicals R, where a plurality of substituents R may in turn define a further mono- or polycyclic, aliphatic or aromatic ring system;

R<sup>1</sup> is, identically or differently on each occurrence, H or an aliphatic or aromatic hydrocarbon radical having 1 to 20 C atoms;

V connects the two ligand moieties L1 and L2, which may be identical or different on each occurrence, covalently to one another, and where the two ligand moieties L1 and L2 satisfy Structure 3



Structure 3

~~where Cy1 and Cy2, identically or differently on each occurrence, correspond to a substituted or unsubstituted, saturated, unsaturated or aromatic homo- or heterocyclic ring, which is in each case bonded ionically, covalently or coordinatively to the metal via a ring atom or via an atom bonded exocyclically to the homo- or heterocyclic ring;~~

Cy1 is, identically or differently on each occurrence, a substituted or unsubstituted aromatic homo- or heterocyclic ring having 5 or 6 ring atoms, which is bonded ionically, covalently or coordinatively to the metal via a ring atom, Cy2 is, identically or differently on each occurrence, a substituted or unsubstituted aromatic homo- or heterocyclic ring having 5 or 6 ring atoms, which is bonded ionically, covalently or coordinatively to the metal via a ring atom; and Cy1 is not identical to Cy2 and one of the two rings bonds via a metal-carbon bond and the other via nitrogen,

and where L3, identically or differently on each occurrence, is a mono- or bidentate, neutral or monoanionic ligand, and where a is 0, 1 or 2.

(as disclosed in paragraph [0025]).

and where L3, identically or differently on each occurrence, is a mono- or bidentate, neutral or monoanionic ligand, and where a is 0, 1 or 2.

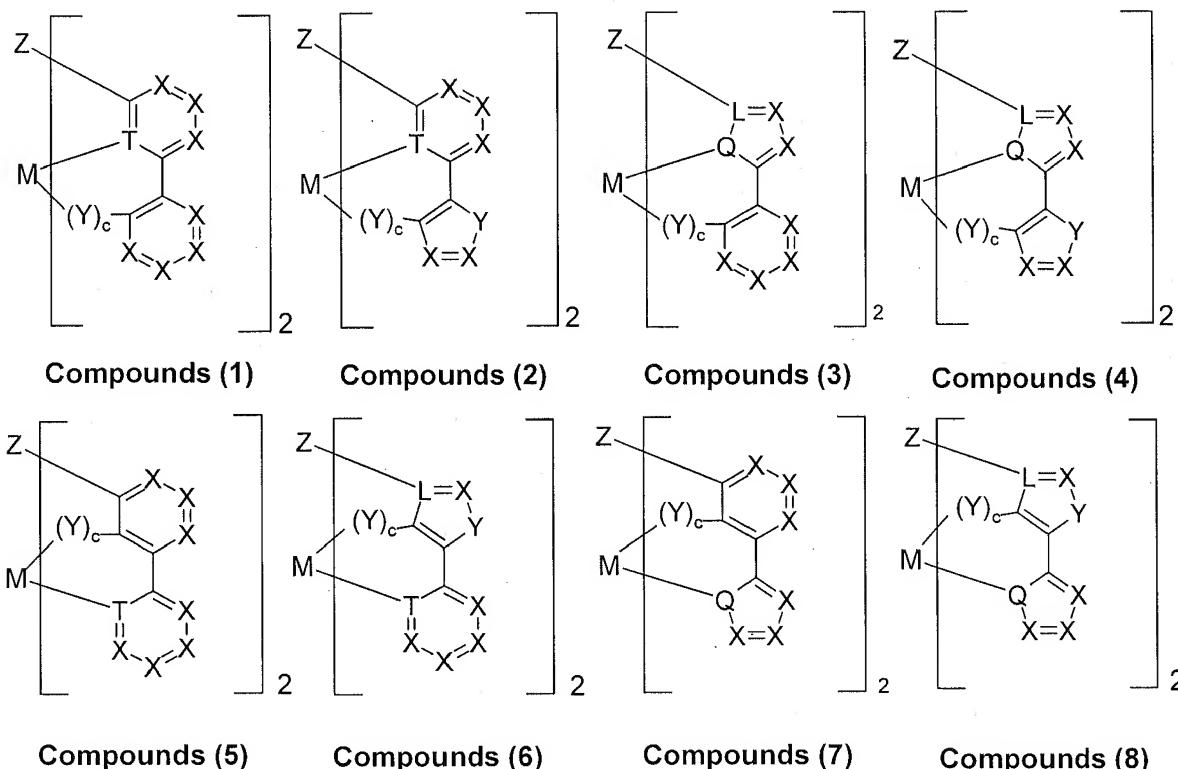
2. (Previously presented) The compound according to Claim 1, wherein the compound is electrically neutral.

3. (Previously presented) The compound according to Claim 1, wherein L1 = L2.

4. (Previously presented) The compound according to claim 1, wherein the bridging unit V contains 1 to 6 atoms or is a 3- to 6-membered homo- or heterocyclic ring.

5. (Cancelled).

6. (Previously presented) The compound as claimed in claim 1, selected from compounds (1) to (8), each of which may also carry one or two additional ligands L3



where:

M is Be, Mg, Ca, Sr, Ba, Al, Ga, In, Tl, Sc, Y, La, Cr, Mo, W, Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag, Au, Zn, Cd or Hg;

L is, identically or differently on each occurrence, C, N or P;

Q is, identically or differently on each occurrence, N, O, S, Se or Te;

T is, identically or differently on each occurrence, N or P;

X is, identically or differently on each occurrence, CR, N or P;

Y is, identically or differently on each occurrence, NR<sup>1</sup>, O, S, Se, Te, SO, SeO, TeO, SO<sub>2</sub>, SeO<sub>2</sub> or TeO<sub>2</sub>;

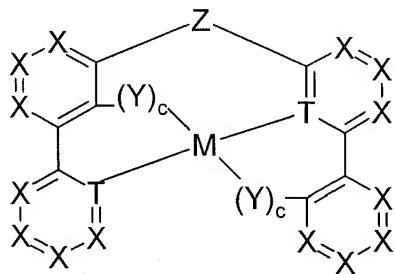
Z is CR<sub>2</sub>;

R is, identically or differently on each occurrence, H, F, Cl, Br, I, NO<sub>2</sub>, CN, a straight-chain, branched or cyclic alkyl or alkoxy group having 1 to 20 C atoms, where one or more non-adjacent CH<sub>2</sub> groups may be replaced by -R<sup>1</sup>C=CR<sup>1</sup>-, -C≡C-, Si(R<sup>1</sup>)<sub>2</sub>, Ge(R<sup>1</sup>)<sub>2</sub>, Sn(R<sup>1</sup>)<sub>2</sub>, C=O, C=S, C=Se, C=NR<sup>1</sup>, -O-, -S-, -NR<sup>1</sup>- or -CONR<sup>1</sup>- and where one or more H atoms may be replaced by F, or an aryl, aryloxy or heteroaryl group having 1 to 14 C atoms, which may be substituted by one or more non-aromatic radicals R, where a plurality of substituents R may in turn define a further mono- or polycyclic, aliphatic or aromatic ring system;

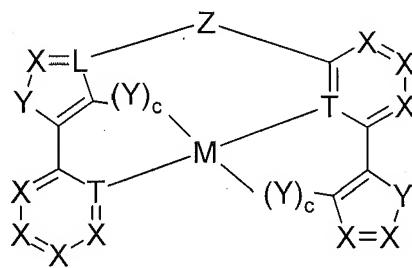
R<sup>1</sup> is, identically or differently on each occurrence, H or an aliphatic or aromatic hydrocarbon radical having 1 to 20 C atoms; and

c is, identically or differently on each occurrence, 0 or 1.

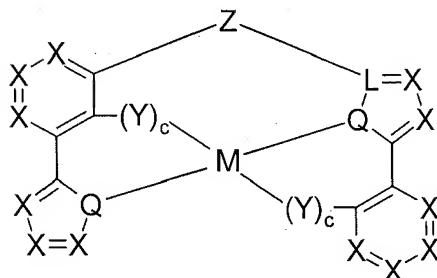
7. (Previously presented) The compound as claimed in claim 1, selected from compounds (9) to (12), each of which may also carry one or two additional ligands L3



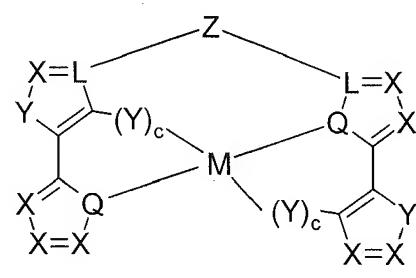
Compounds (9)



Compounds (10)



Compounds (11)



Compounds (12)

where

M is Be, Mg, Ca, Sr, Ba, Al, Ga, In, Tl, Sc, Y, La, Cr, Mo, W, Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag, Au, Zn, Cd or Hg;

L is, identically or differently on each occurrence, C, N or P;

Q is, identically or differently on each occurrence, N, O, S, Se or Te;

T is, identically or differently on each occurrence, N or P;

X is, identically or differently on each occurrence, CR, N or P;

Y is, identically or differently on each occurrence, NR<sup>1</sup>, O, S, Se, Te, SO, SeO, TeO, SO<sub>2</sub>, SeO<sub>2</sub> or TeO<sub>2</sub>;

Z is CR<sub>2</sub>;

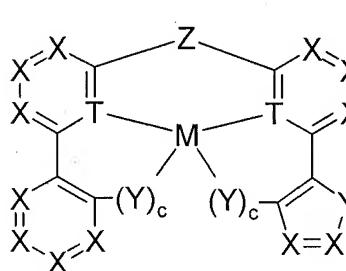
R is, identically or differently on each occurrence, H, F, Cl, Br, I, NO<sub>2</sub>, CN, a straight-chain, branched or cyclic alkyl or alkoxy group having 1 to 20 C atoms,

where one or more non-adjacent CH<sub>2</sub> groups may be replaced by -R<sup>1</sup>C=CR<sup>1</sup>-, -C≡C-, Si(R<sup>1</sup>)<sub>2</sub>, Ge(R<sup>1</sup>)<sub>2</sub>, Sn(R<sup>1</sup>)<sub>2</sub>, C=O, C=S, C=Se, C=NR<sup>1</sup>, -O-, -S-, -NR<sup>1</sup>- or -CONR<sup>1</sup>- and where one or more H atoms may be replaced by F, or an aryl, aryloxy or heteroaryl group having 1 to 14 C atoms, which may be substituted by one or more non-aromatic radicals R, where a plurality of substituents R may in turn define a further mono- or polycyclic, aliphatic or aromatic ring system;

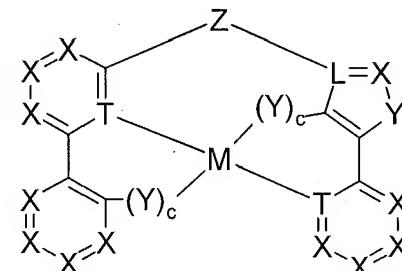
R<sup>1</sup> is, identically or differently on each occurrence, H or an aliphatic or aromatic hydrocarbon radical having 1 to 20 C atoms; and

c is, identically or differently on each occurrence, 0 or 1.

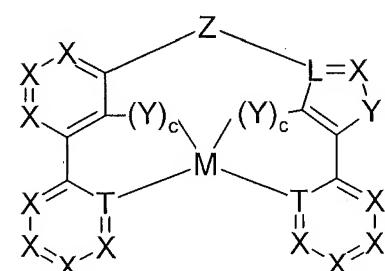
8. (Previously presented) The compound as claimed in claim 1, selected from compounds (13) to (30), each of which may also carry one or two additional ligands L3



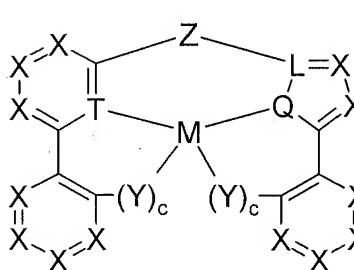
Compounds (13)



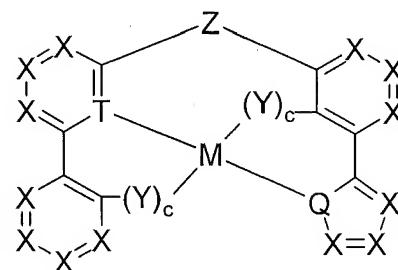
Compounds (14)



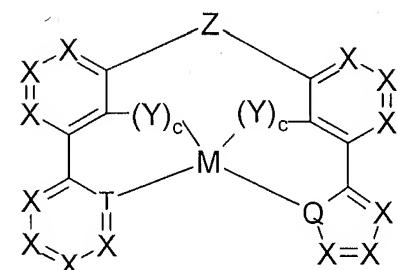
Compounds (15)



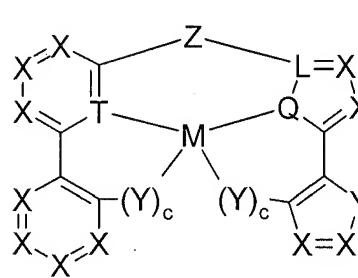
Compounds (16)



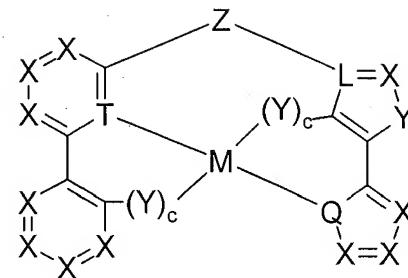
Compounds (17)



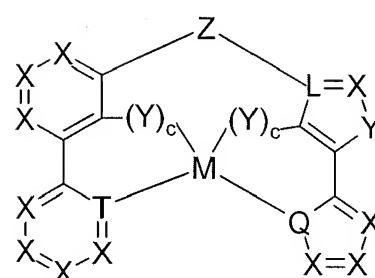
Compounds (18)



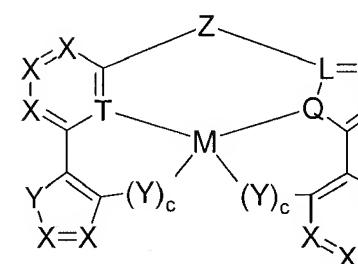
Compounds (19)



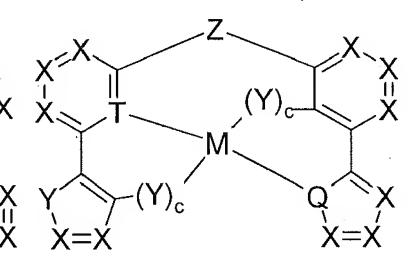
Compounds (20)



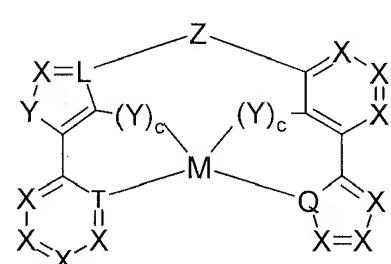
Compounds (21)



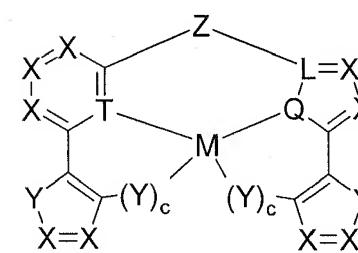
Compounds (22)



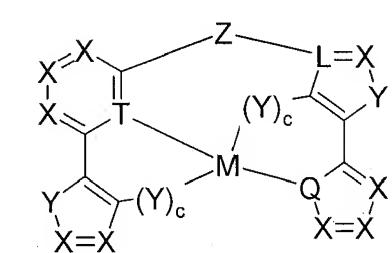
Compounds (23)



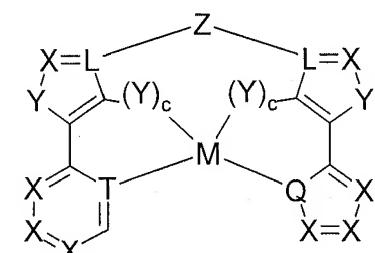
Compounds (24)



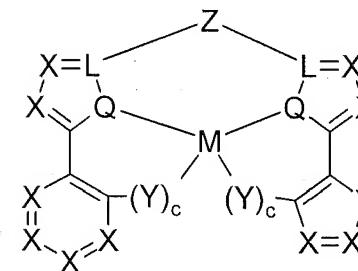
Compounds (25)



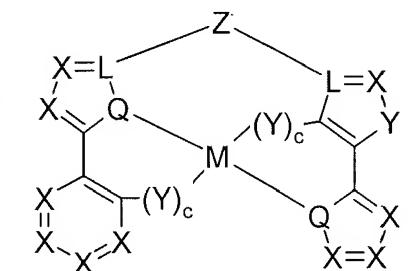
Compounds (26)



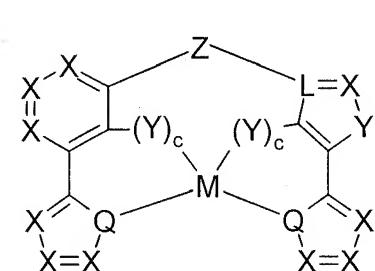
Compounds (27)



Compounds (28)



Compounds (29)



Compounds (30)

where

M is Be, Mg, Ca, Sr, Ba, Al, Ga, In, Tl, Sc, Y, La, Cr, Mo, W, Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag, Au, Zn, Cd or Hg;

L is, identically or differently on each occurrence, C, N or P;

Q is, identically or differently on each occurrence, N, O, S, Se or Te;

T is, identically or differently on each occurrence, N or P;

X is, identically or differently on each occurrence, CR, N or P;

Y is, identically or differently on each occurrence, NR<sup>1</sup>, O, S, Se, Te, SO, SeO, TeO, SO<sub>2</sub>, SeO<sub>2</sub> or TeO<sub>2</sub>;

Z is CR<sub>2</sub>;

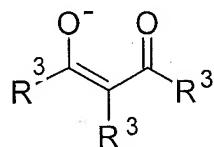
R is, identically or differently on each occurrence, H, F, Cl, Br, I, NO<sub>2</sub>, CN, a straight-chain, branched or cyclic alkyl or alkoxy group having 1 to 20 C atoms, where one or more non-adjacent CH<sub>2</sub> groups may be replaced by -R<sup>1</sup>C=CR<sup>1</sup>-, -C≡C-, Si(R<sup>1</sup>)<sub>2</sub>, Ge(R<sup>1</sup>)<sub>2</sub>, Sn(R<sup>1</sup>)<sub>2</sub>, C=O, C=S, C=Se, C=NR<sup>1</sup>, -O-, -S-, -NR<sup>1</sup>- or -CONR<sup>1</sup>- and where one or more H atoms may be replaced by F, or an aryl, aryloxy or heteroaryl group having 1 to 14 C atoms, which may be substituted by one or more non-aromatic radicals R, where a plurality of substituents R may in turn define a further mono- or polycyclic, aliphatic or aromatic ring system;

R<sup>1</sup> is, identically or differently on each occurrence, H or an aliphatic or aromatic hydrocarbon radical having 1 to 20 C atoms; and

c is, identically or differently on each occurrence, 0 or 1.

9. (Previously presented) The compound as claimed in claim 1, wherein ligand L3, if present, is a bidentate chelating ligand.

10. (Previously presented) The compound according to Claim 9, wherein L3 is present and is a monoanionic ligand which is identical to or different from ligand moieties L1 and L2 or in that L3 is a ligand of structure (4)



Structure (4)

where  $R^3$ , identically or differently on each occurrence, represents H, a C<sub>1</sub> to C<sub>20</sub> alkyl group, a C<sub>1</sub> to C<sub>20</sub> alkoxy group, a C<sub>4</sub> to C<sub>20</sub> aryl or heteroaryl group or a C<sub>4</sub> to C<sub>20</sub> aryloxy or heteroaryloxy group, and one or more H atoms may be replaced by F.

11. (Previously presented) The compound according to claim 6, wherein the symbol M = Be, Mg, Pt or Zn, and the index a = 0.

12. (Previously presented) The compound according to Claim 11, wherein the symbol c = 0 and M = Pt.

13. (Previously presented) The compound according to claim 6, wherein the symbol M = Rh or Ir, and the index a = 1 in the case of a bidentate monoanionic ligand L3 or a = 2 in the case of a monodentate monoanionic ligand L3.

14. (Previously presented) The compound according to claim 6, wherein the symbol L = C or N.

15. (Previously presented) The compound according to claim 1, wherein the symbol Q = O or S.

16. (Previously presented) The compound according to claim 6, wherein the symbol T = N.

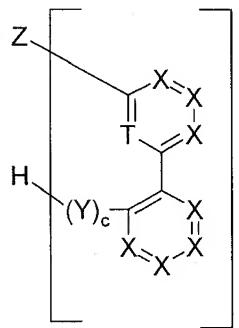
17. (Previously presented) The compound according to claim 6, wherein the symbol X = CR or N.

18. (Cancelled)

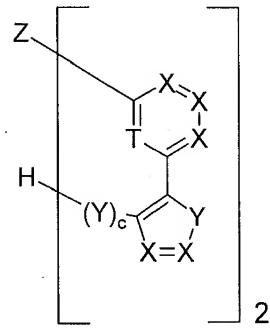
19. (Previously presented) The compound according to claim 5, wherein the symbol R = H, F, Cl, Br, I, CN, a straight-chain, branched or cyclic alkyl or alkoxy group having 1 to 6 C atoms or an aryl or heteroaryl group having 3 to 10 C atoms, which may be substituted by one or more

non-aromatic radicals R, where a plurality of substituents R, both on the same ring and also on the two different rings, may together in turn define a further mono- or polycyclic ring system.

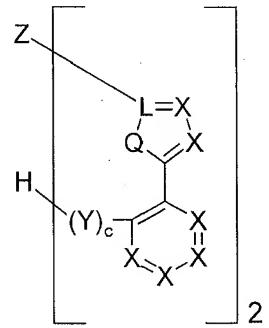
20. (Withdrawn) Compounds (31) to (60)



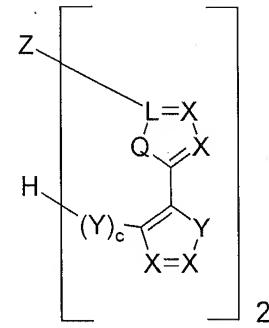
Compounds (31)



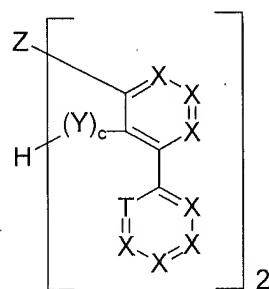
Compounds (32)



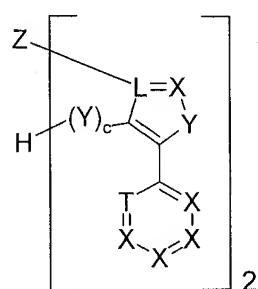
Compounds (33)



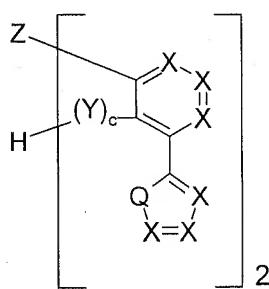
Compounds (34)



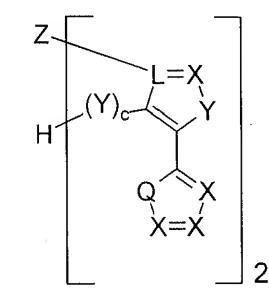
Compounds (35)



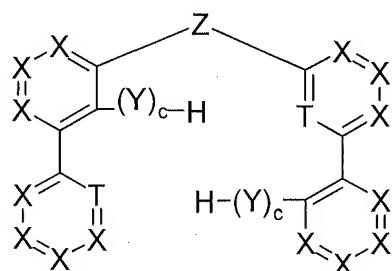
Compounds (36)



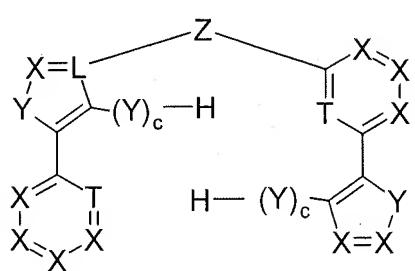
Compounds (37)



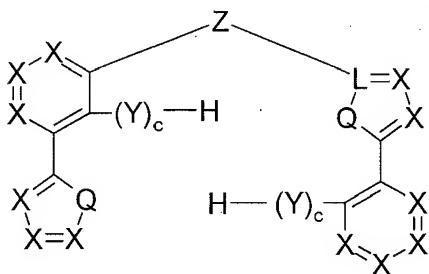
Compounds (38)



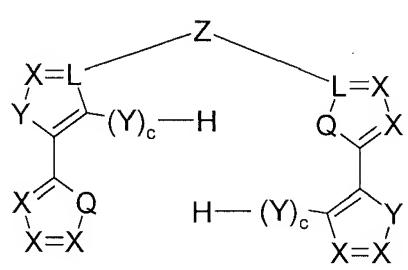
Compounds (39)



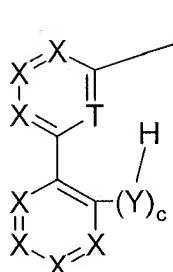
Compounds (40)



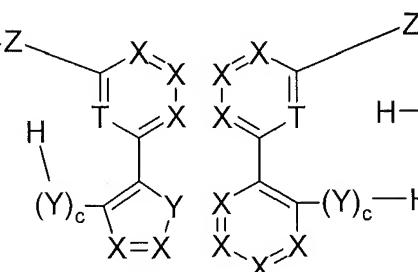
Compounds (41)



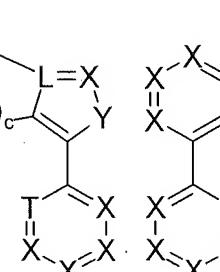
Compounds (42)



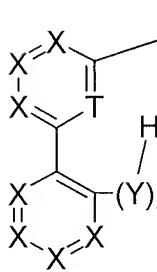
Compounds (43)



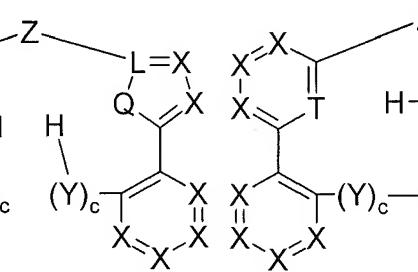
Compounds (44)



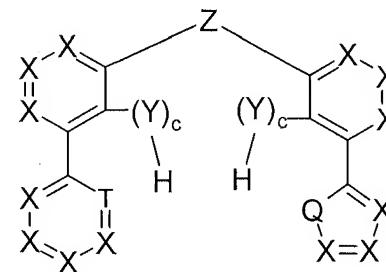
Compounds (45)



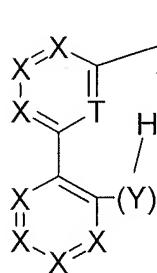
Compounds (46)



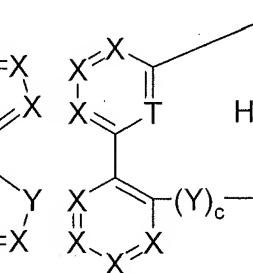
Compounds (47)



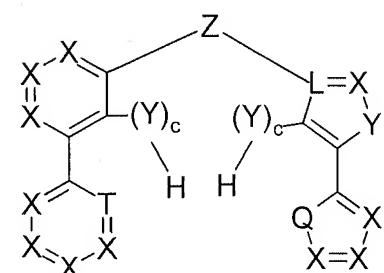
Compounds (48)



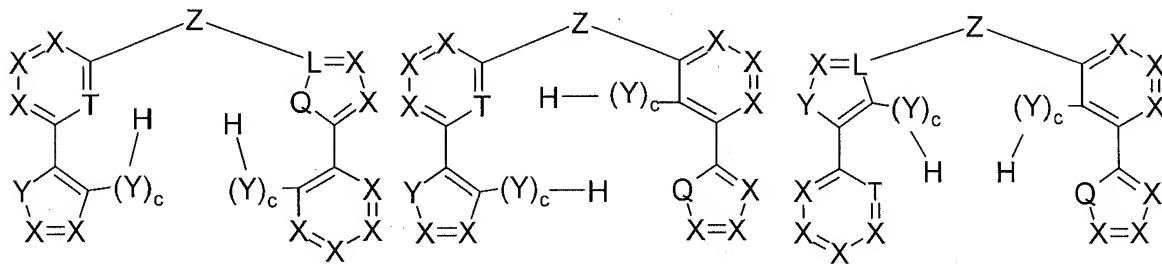
Compounds (49)



Compounds (50)



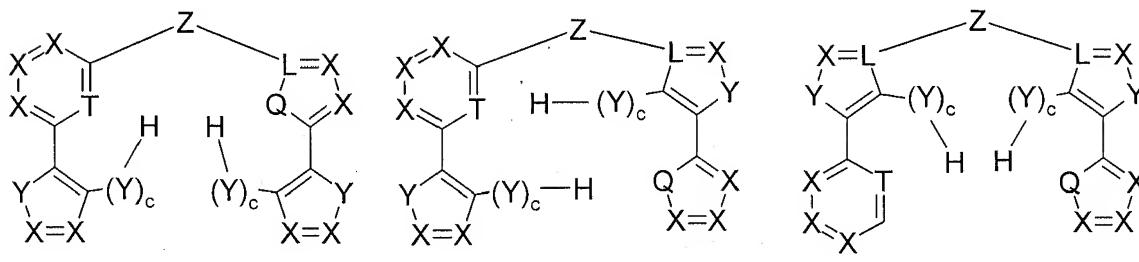
Compounds (51)



Compounds (52)

Compounds (53)

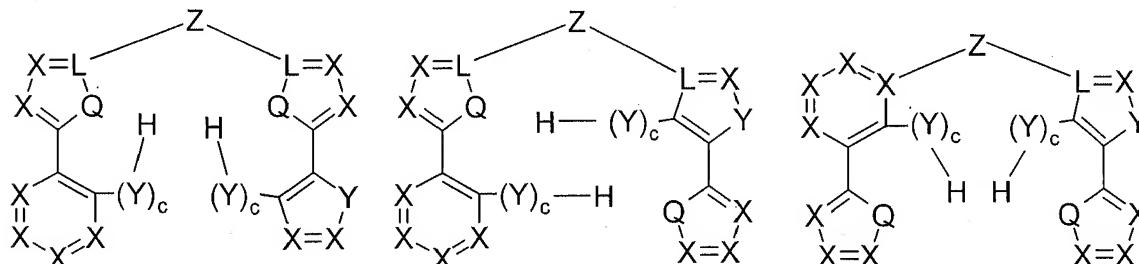
Compounds (54)



Compounds (55)

Compounds (56)

Compounds (57)



Compounds (58)

Compounds (59)

Compounds (60)

where

L is, identically or differently on each occurrence, C, N or P;

Q is, identically or differently on each occurrence, N, O, S, Se or Te;

T is, identically or differently on each occurrence, N or P;

X is, identically or differently on each occurrence, CR, N or P;

Y is, identically or differently on each occurrence, NR<sup>1</sup>, O, S, Se, Te, SO, SeO, TeO, SO<sub>2</sub>, SeO<sub>2</sub> or TeO<sub>2</sub>;

Z is CR<sub>2</sub>;

R is, identically or differently on each occurrence, H, F, Cl, Br, I, NO<sub>2</sub>, CN, a straight-chain, branched or cyclic alkyl or alkoxy group having 1 to 20 C atoms, where one or more non-adjacent CH<sub>2</sub> groups may be replaced by -R<sup>1</sup>C=CR<sup>1</sup>-, -C≡C-, Si(R<sup>1</sup>)<sub>2</sub>, Ge(R<sup>1</sup>)<sub>2</sub>, Sn(R<sup>1</sup>)<sub>2</sub>, C=O, C=S, C=Se, C=NR<sup>1</sup>, -O-, -S-, -NR<sup>1</sup>- or -CONR<sup>1</sup>- and where one or more H atoms may be replaced by F, or an aryl, aryloxy or heteroaryl group having 1 to 14 C atoms, which may be substituted by one or more non-aromatic radicals R, where a plurality of substituents R may in turn define a further mono- or polycyclic, aliphatic or aromatic ring system;

R<sup>1</sup> is, identically or differently on each occurrence, H or an aliphatic or aromatic hydrocarbon radical having 1 to 20 C atoms; and

c is, identically or differently on each occurrence, 0 or 1.

with the proviso the compounds bis(6-phenyl-2-pyridyl)methane, bis(6-phenyl-2-pyridyl)ketone, bis(6-(1-hydroxy-3,5-di-tert-butyl)phenyl-2-pyridyl)methanol, 2,2'-thiobis(3-cyano-2,4-diphenyl)pyridine, bis(6-(3-phenyl)phenyl-2-pyridyl)methane and isomers are excluded.

21. (Cancelled)

22. (Previously presented) The compound according to claim 1, wherein the compound has a purity (determined by <sup>1</sup>H-NMR and/or HPLC) that is greater than 99%.

23. (Cancelled)

24. (Previously presented) The polymer or dendrimer according to Claim 30, wherein at least one radical R represents a bond to the polymer or dendrimer.

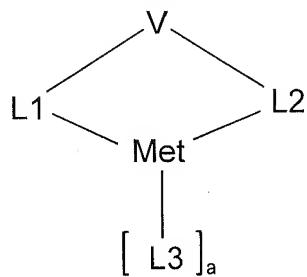
25. (Previously presented) The polymer according to claim 24, wherein the polymer is a polyfluorene, polyspirobifluorene, poly-para-phenylene, polydihydrophenanthrene, polyindenofluorene, polycarbazole, polythiophene, polyketone, polyvinylcarbazole or copolymers which have a plurality of the units mentioned here.

26. (Previously presented) An electronic device comprising at least a polymer, a copolymer or a dendrimer according to claim 30.

27. (Previously presented) The electronic device according to Claim 26, wherein the device is an organic light-emitting diode (OLED), an organic integrated circuit (O-IC), an organic field-effect transistor (OFET), an organic thin-film transistor (OTFT), an organic solar cell (O-SC) or an organic laser diode (O-laser).

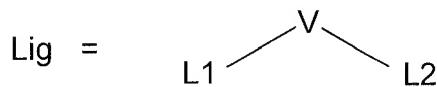
28. (Previously presented) An electronic device comprising at least one compound according to claim 1.

29. (Currently amended) A process for the preparation of a compound of Structure 1



Structure 1

wherein Structure 1 contains a metal Met, coordinated to a tetradeятate chelating ligand Lig of Structure 2



Structure 2

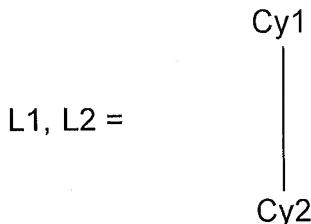
where V is CR<sub>2</sub>

R is, identically or differently on each occurrence, H, F, Cl, Br, I, NO<sub>2</sub>, CN, a straight-chain, branched or cyclic alkyl or alkoxy group having 1 to 20 C atoms, where one or more non-adjacent CH<sub>2</sub> groups may be replaced by -R<sup>1</sup>C=CR<sup>1</sup>-, -C≡C-, Si(R<sup>1</sup>)<sub>2</sub>, Ge(R<sup>1</sup>)<sub>2</sub>, Sn(R<sup>1</sup>)<sub>2</sub>, C=O, C=S, C=Se, C=NR<sup>1</sup>, -O-, -S-, -NR<sup>1</sup>- or -CONR<sup>1</sup>- and where one or more H atoms may be replaced by F, or an aryl, aryloxy or heteroaryl group having 1

to 14 C atoms, which may be substituted by one or more non-aromatic radicals R, where a plurality of substituents R may in turn define a further mono- or polycyclic, aliphatic or aromatic ring system;

R<sup>1</sup> is, identically or differently on each occurrence, H or an aliphatic or aromatic hydrocarbon radical having 1 to 20 C atoms;

and V connects the two ligand moieties L1 and L2, which may be identical or different on each occurrence, covalently to one another, and where the two ligand moieties L1 and L2 satisfy Structure 3



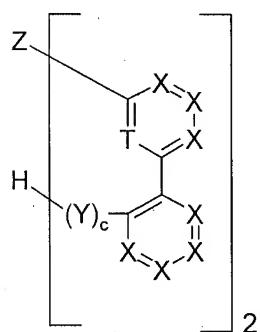
Structure 3

where Cy1 and Cy2, identically or differently on each occurrence, correspond to a substituted or unsubstituted, saturated, unsaturated or aromatic homo- or heterocyclic ring, which is in each case bonded ionically, covalently or coordinatively to the metal via a ring atom or via an atom bonded exoeyelically to the homo- or heterocyclic ring;

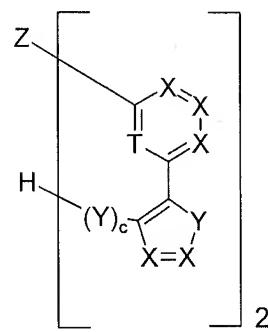
Cy1 is, identically or differently on each occurrence, a substituted or unsubstituted aromatic homo- or heterocyclic ring having 5 or 6 ring, which is bonded ionically, covalently or coordinatively to the metal via a ring atom, Cy2 is, identically or differently on each occurrence, a substituted or unsubstituted aromatic homo- or heterocyclic ring having 5 or 6 ring atoms, which is bonded ionically, covalently or coordinatively to the metal via a ring atom; and Cy1 is not identical to Cy2 and one of the two rings bonds via a metal-carbon bond and the other via nitrogen,

and where L3, identically or differently on each occurrence, is a mono- or bidentate, neutral or monoanionic ligand, and where a is 0, 1 or 2,

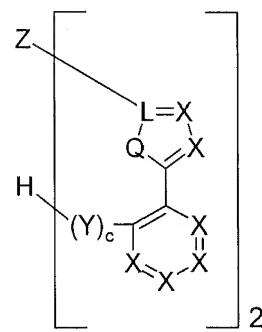
which comprises reacting compounds (31) to (60) with metal alkoxides of compound (61), with metal ketoketonates of compound (62), metal halides, carboxylates, nitrates and sulfates of compound (63) or alkyl- or arylmetal compounds of compound (64)



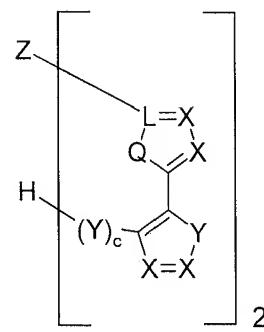
Compounds (31)



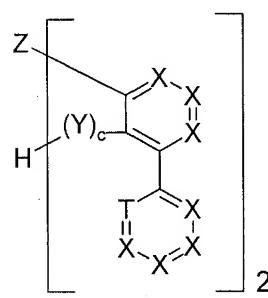
Compounds (32)



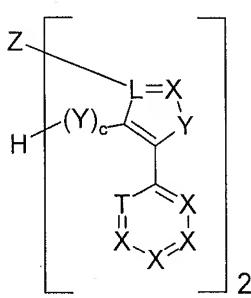
Compounds (33)



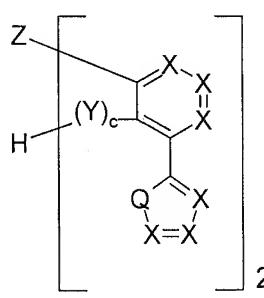
Compounds (34)



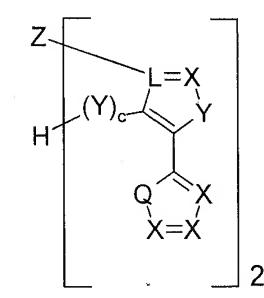
Compounds (35)



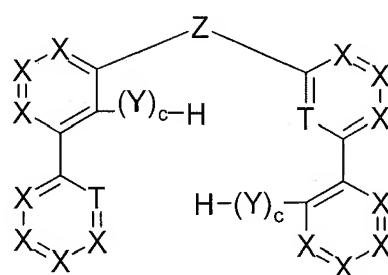
Compounds (36)



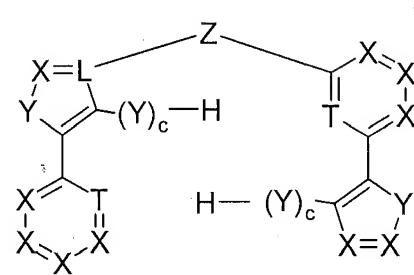
Compounds (37)



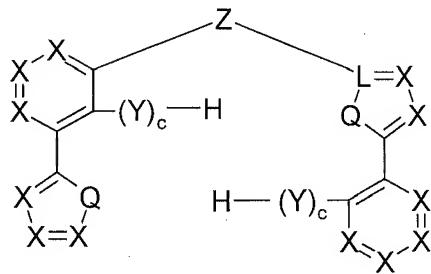
Compounds (38)



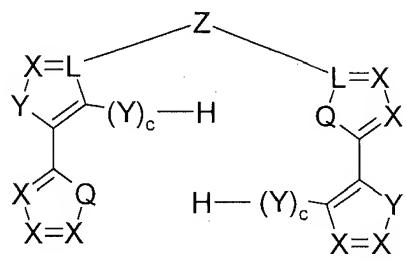
Compounds (39)



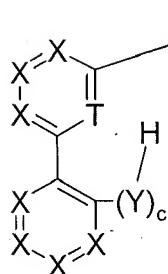
Compounds (40)



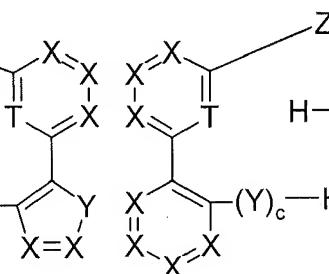
Compounds (41)



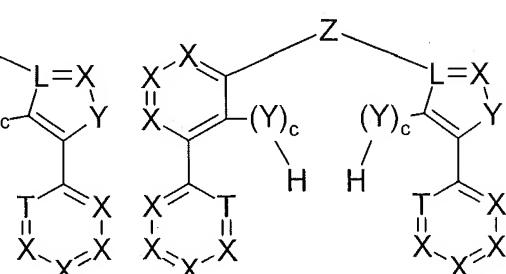
Compounds (42)



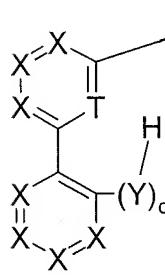
Compounds (43)



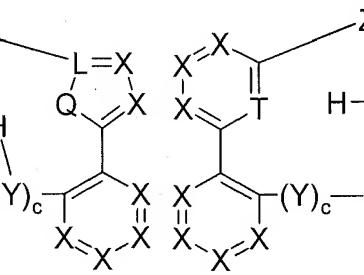
Compounds (44)



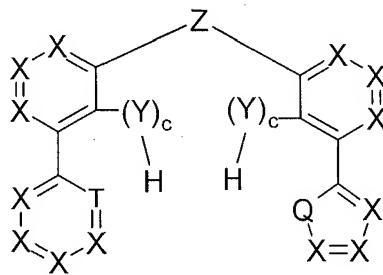
Compounds (45)



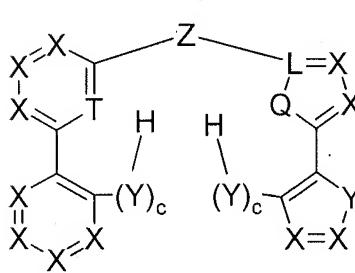
Compounds (46)



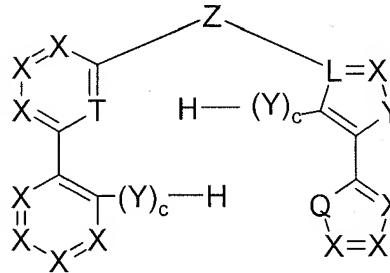
Compounds (47)



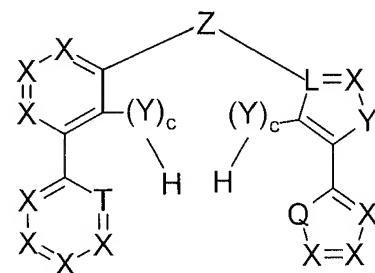
Compounds (48)



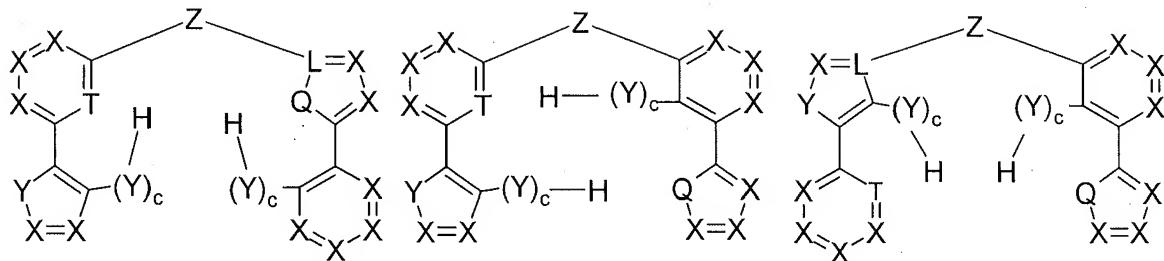
Compounds (49)



Compounds (50)



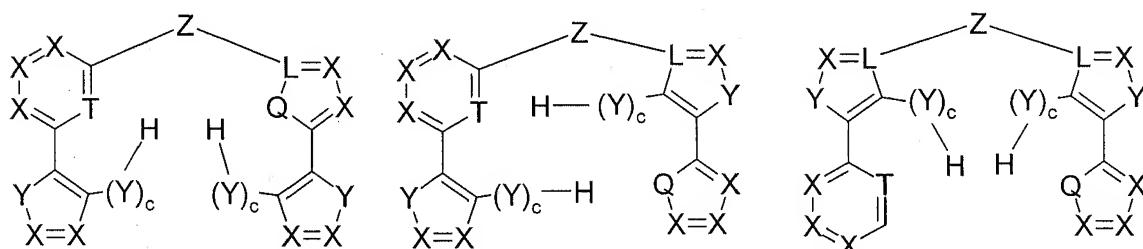
Compounds (51)



Compounds (52)

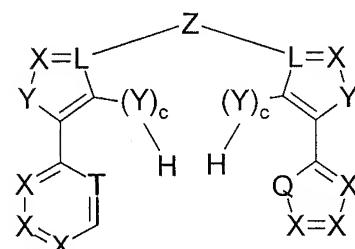
Compounds (53)

Compounds (54)

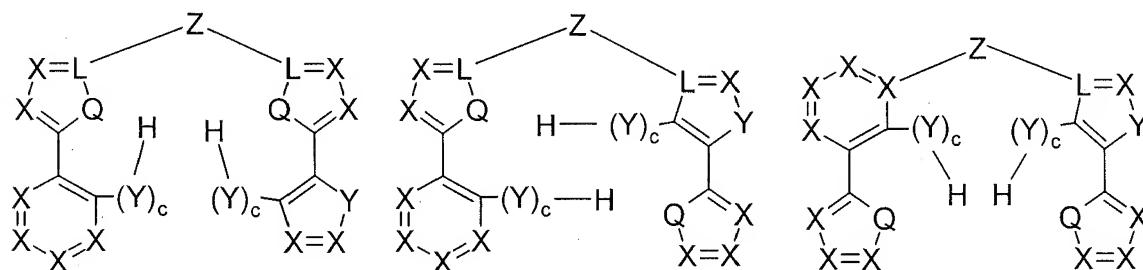


Compounds (55)

Compounds (56)

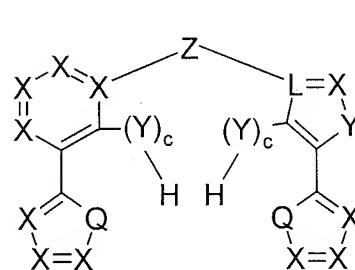


Compounds (57)



Compounds (58)

Compounds (59)



Compounds (60)

wherein

L is, identically or differently on each occurrence, C, N or P;

Q is, identically or differently on each occurrence, N, O, S, Se or Te;

T is, identically or differently on each occurrence, N or P;

X is, identically or differently on each occurrence, CR, N or P;

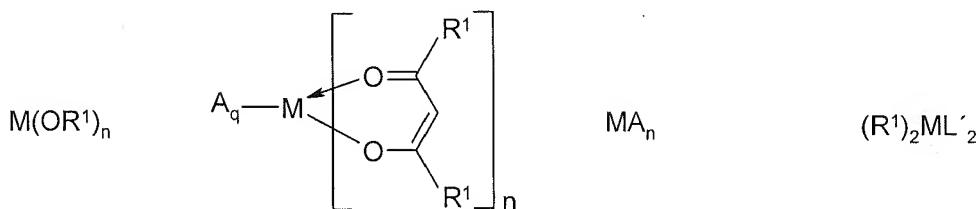
Y is, identically or differently on each occurrence, NR<sup>1</sup>, O, S, Se, Te, SO, SeO, TeO, SO<sub>2</sub>, SeO<sub>2</sub> or TeO<sub>2</sub>;

R<sup>1</sup> is defined above;

Z is CR<sub>2</sub>;

R is defined above,

c is, identically or differently on each occurrence, 0 or 1,



Compounds (61)

Compounds (62)

Compounds (63)

Compounds (64)

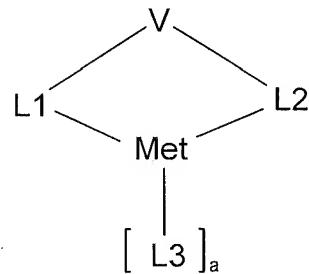
wherein the symbols M and R<sup>1</sup>,

M is Be, Mg, Ca, Sr, Ba, Al, Ga, In, Tl, Sc, Y, La, Cr, Mo, W, Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag, Au, Zn, Cd or Hg;

R<sup>1</sup> is defined above;

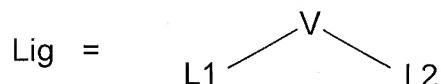
and the symbol A = F, Cl, Br, I, OH, formate, acetate, propionate, benzoate, nitrate or sulfate, and L' is a monodentate ligand and n = 1, 2 or 3 and q = 0, 1, 2 or 3.

30. (Currently amended) A conjugated, partially conjugated and/or non-conjugated polymer or dendrimer comprising one or more compounds of Structure 1



Structure 1

wherein Structure 1 contains a metal Met, coordinated to a tetradentate chelating ligand Lig of Structure 2



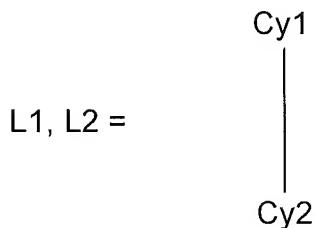
Structure 2

where V is CR<sub>2</sub>;

R is, identically or differently on each occurrence, H, F, Cl, Br, I, NO<sub>2</sub>, CN, a straight-chain, branched or cyclic alkyl or alkoxy group having 1 to 20 C atoms, where one or more non-adjacent CH<sub>2</sub> groups may be replaced by -R<sup>1</sup>C=CR<sup>1</sup>-, -C≡C-, Si(R<sup>1</sup>)<sub>2</sub>, Ge(R<sup>1</sup>)<sub>2</sub>, Sn(R<sup>1</sup>)<sub>2</sub>, C=O, C=S, C=Se, C=NR<sup>1</sup>, -O-, -S-, -NR<sup>1</sup>- or -CONR<sup>1</sup>- and where one or more H atoms may be replaced by F, or an aryl, aryloxy or heteroaryl group having 1 to 14 C atoms, which may be substituted by one or more non-aromatic radicals R, where a plurality of substituents R may in turn define a further mono- or polycyclic, aliphatic or aromatic ring system;

R<sup>1</sup> is, identically or differently on each occurrence, H or an aliphatic or aromatic hydrocarbon radical having 1 to 20 C atoms;

and V connects the two ligand moieties L1 and L2, which may be identical or different on each occurrence, covalently to one another, and where the two ligand moieties L1 and L2 satisfy Structure 3



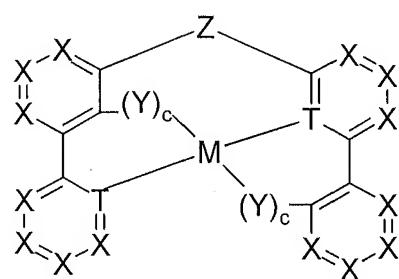
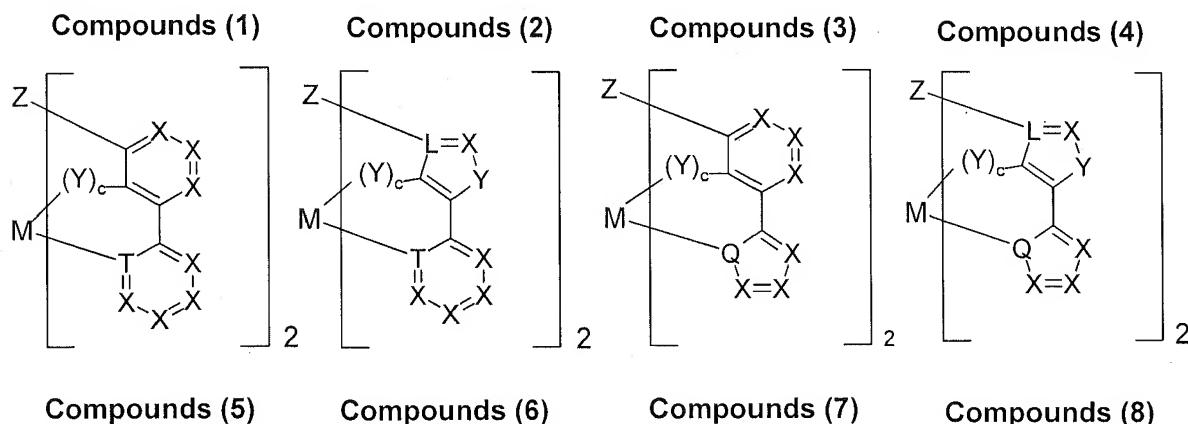
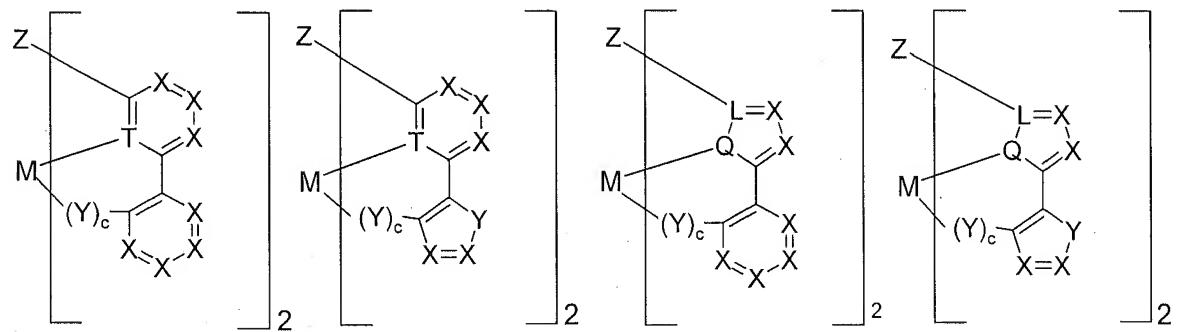
Structure 3

where Cy1 and Cy2, identically or differently on each occurrence, correspond to a substituted or unsubstituted, saturated, unsaturated or aromatic homo- or heterocyclic ring, which is in each case bonded ionically, covalently or coordinatively to the metal via a ring atom or via an atom bonded exocyclically to the homo- or heterocyclic ring;

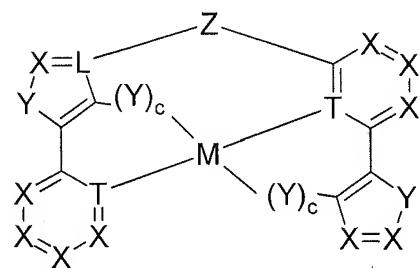
Cy1 is, identically or differently on each occurrence, a substituted or unsubstituted aromatic homo- or heterocyclic ring having 5 or 6 ring, which is bonded ionically, covalently or coordinatively to the metal via a ring atom, Cy2 is, identically or differently on each occurrence, a substituted or unsubstituted aromatic homo- or heterocyclic ring having 5 or 6 ring atoms, which is bonded ionically, covalently or coordinatively to the metal via a ring atom; and Cy1 is not identical to Cy2 and one of the two rings bonds via a metal-carbon bond and the other via nitrogen,

and where L3, identically or differently on each occurrence, is a mono- or bidentate, neutral or monoanionic ligand, and where a is 0, 1 or 2,

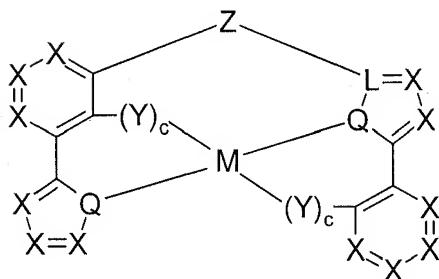
or compounds (1) to (12)



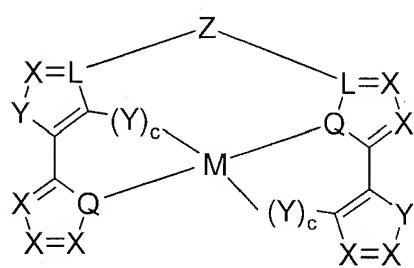
Compounds (9)



Compounds (10)



Compounds (11)



Compounds (12)

wherein

R is defined above; R<sup>1</sup> is defined above;

M is Be, Mg, Ca, Sr, Ba, Al, Ga, In, Tl, Sc, Y, La, Cr, Mo, W, Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag, Au, Zn, Cd or Hg;

L is, identically or differently on each occurrence, C, N or P;

Q is, identically or differently on each occurrence, N, O, S, Se or Te;

T is, identically or differently on each occurrence, N or P;

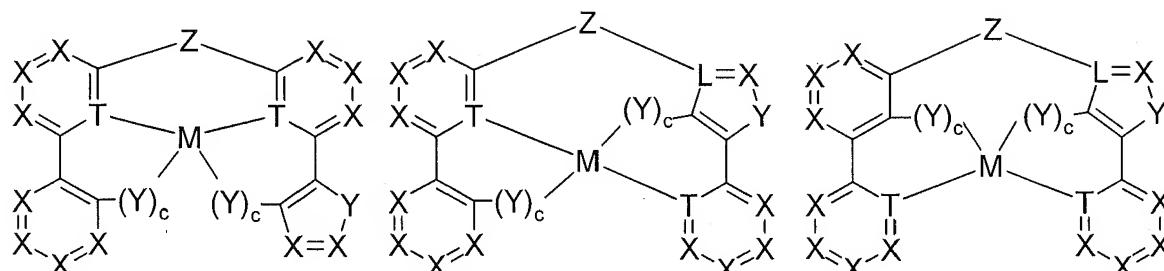
X is, identically or differently on each occurrence, CR, N or P;

Y is, identically or differently on each occurrence, NR<sup>1</sup>, O, S, Se, Te, SO, SeO, TeO, SO<sub>2</sub>, SeO<sub>2</sub> or TeO<sub>2</sub>;

Z is CR<sub>2</sub>

c is, identically or differently on each occurrence, 0 or 1;

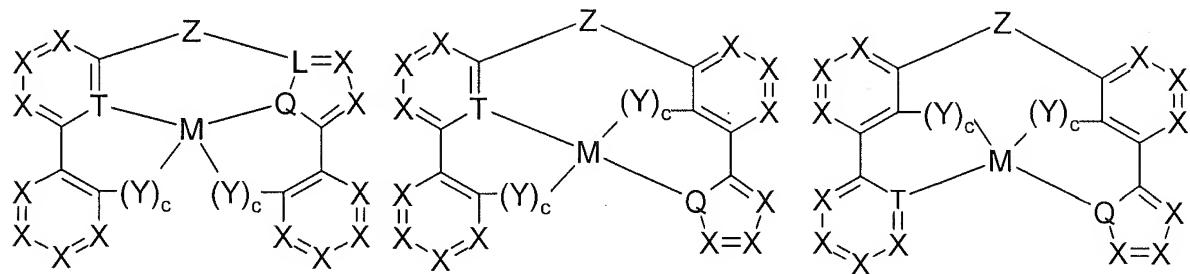
or compounds (13) to (30)



Compounds (13)

Compounds (14)

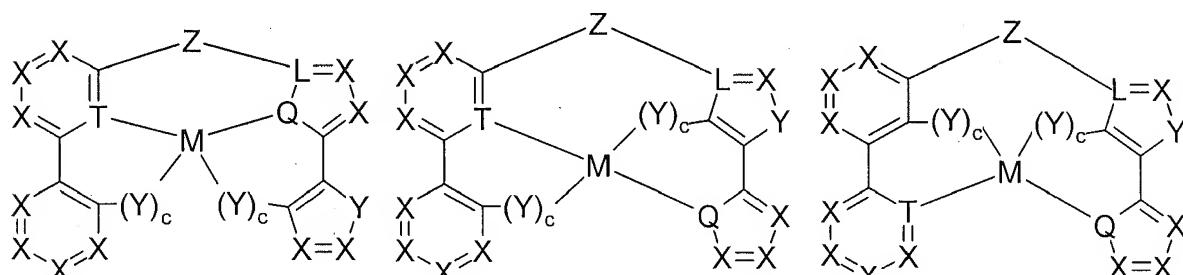
Compounds (15)



Compounds (16)

Compounds (17)

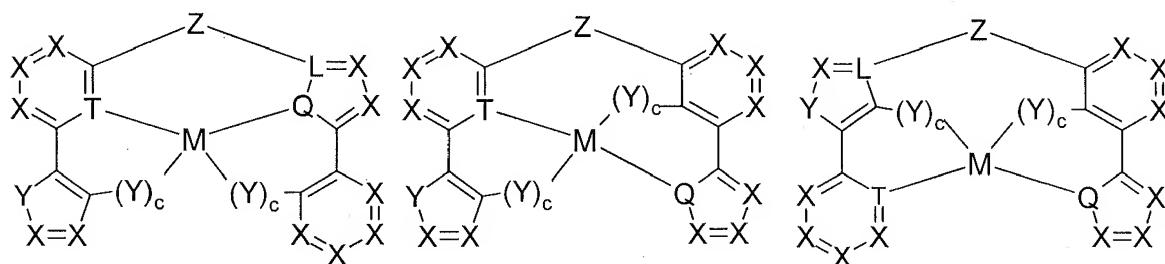
Compounds (18)



Compounds (19)

Compounds (20)

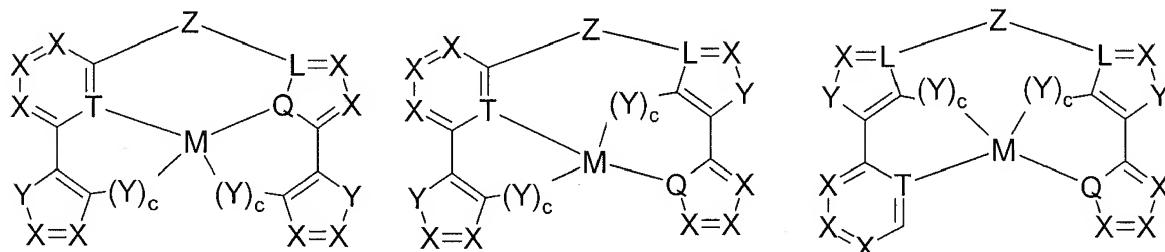
Compounds (21)



Compounds (22)

Compounds (23)

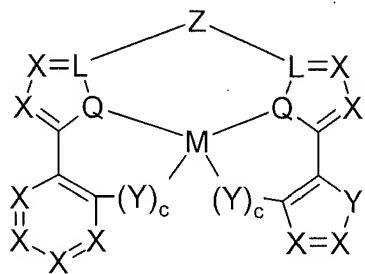
Compounds (24)



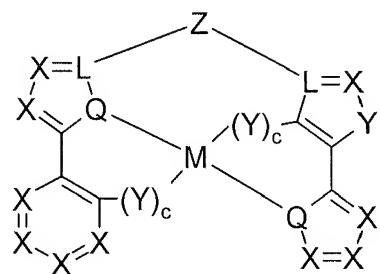
Compounds (25)

Compounds (26)

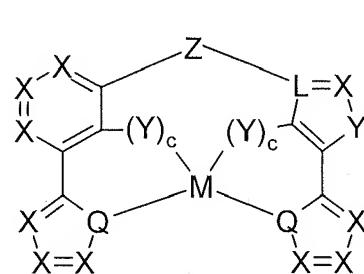
Compounds (27)



Compounds (28)



Compounds (29)



Compounds (30)

where the symbols and indices R, R<sup>1</sup>, R<sup>2</sup>, M, L, Q, T, X, Y, Z and c are defined above.